

## The animate house, the institutionalization of the household in Neolithic central Anatolia

Douglas Baird, Andrew Fairbairn & Louise Martin

**To cite this article:** Douglas Baird, Andrew Fairbairn & Louise Martin (2017) The animate house, the institutionalization of the household in Neolithic central Anatolia, *World Archaeology*, 49:5, 753-776, DOI: [10.1080/00438243.2016.1215259](https://doi.org/10.1080/00438243.2016.1215259)

**To link to this article:** <https://doi.org/10.1080/00438243.2016.1215259>



Published online: 28 Sep 2016.



Submit your article to this journal [↗](#)



Article views: 1335



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 9 View citing articles [↗](#)



## The animate house, the institutionalization of the household in Neolithic central Anatolia

Douglas Baird<sup>a</sup>, Andrew Fairbairn<sup>b</sup> and Louise Martin<sup>c</sup>

<sup>a</sup>Department of Archaeology, Classics and Egyptology, University of Liverpool, Liverpool, UK; <sup>b</sup>School of Social Science, The University of Queensland, Brisbane, Australia; <sup>c</sup>Institute of Archaeology, University College London, London, UK

### ABSTRACT


This paper explores the effectiveness of a domestic mode of production model in explaining the development of Neolithic households in South-west Asia, using evidence from the site of Boncuklu in central Anatolia. We present evidence that Boncuklu households were institutionalized through repetitive practice, highly structured and symbolically charged domestic activity, ritual and symbolism stressing the animate and transcendental nature of the house, relating to continuity and idiosyncratic identity display. The Boncuklu evidence also suggests supra-household groups, possibly bound together by certain landscape exploitation activities, were reinforced by their own distinctive ritual practices and symbolism in parallel with and probably in a certain tension with the cohesive tendencies of individual households, even in the absence of evidence of monumental non-domestic communal structures seen at some Neolithic sites. This suggests the domestic mode of production model does not apply well to Neolithic South-west Asia, certainly for long time periods and in certain regions.

### KEYWORDS

Neolithic; households; symbolism; skulls; bucrania; corporate groups

### Introduction

A notable feature of the Neolithic of South-west Asia is the appearance of substantially constructed houses, often showing signs of complex internal fixtures and elaborate architectural devices (Byrd 1994). These houses also display structured use of domestic space, indicating discrete areas for different tasks and storage, facilitating sophisticated resource exploitation measures and elaborate social arrangements (Byrd 1994, 2005). They also often demonstrate significant duration both of individual houses and of sequences of houses in the same location, presumably attesting to the longevity of households, and also display evidence of elaborate ritual and symbolic expression within the house. These features are exemplified at Çatalhöyük, where mudbrick houses were regularly plastered, and there was a north–south division in space use within each house, with a kitchen ‘dirty’ area in the north and ‘clean’ area for sleeping, socializing and food consumption in the south. There was a storage room and/or storage bins to one side of the main room, and the ‘clean’ areas were distinguished by burials, paintings, and clay reliefs of animals and insertion of animal body parts into walls and platforms (Hodder 2006). Repeated reconstruction of houses on the same location was also characteristic of the site. Whilst Çatalhöyük

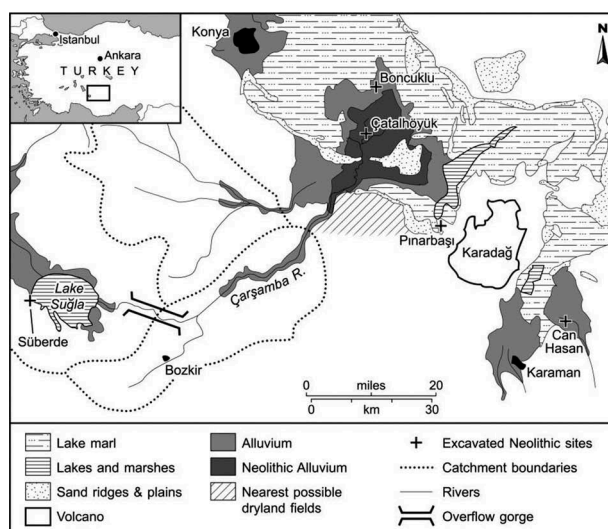
**CONTACT** Douglas Baird ✉ [dbaird@liverpool.ac.uk](mailto:dbaird@liverpool.ac.uk)  Department of Archaeology, Classics and Egyptology, University of Liverpool, 12-14 Abercromby Square, L69 7WZ

© 2016 Informa UK Limited, trading as Taylor & Francis Group

is a well-known example, these practices were widespread, although seen to varying degrees from the Pre-Pottery Neolithic A (PPNA) period in the Levant onwards through the Aceramic Neolithic. Central Anatolian characteristics of repeated reconstruction are apparent at Aşıklı from 8300 cal BC (Özbaşaran 2012) and are seen in the Levant, for example, at Jericho in the PPNA (Byrd 2005, 264) and Halula in the Pre-Pottery Neolithic B (PPNB) (Kuijt et al. 2011, 507). Plastered mudbrick houses appear from the PPNA, for example, at Jericho in the PPNA (Byrd 2005, 264). Hallan Çemi (Rosenberg 1994, 125) in south-east Turkey, and Mureybet (Helmer, Gourichon, and Stordeur 2004) and other PPNA/Early PPNB sites on the Euphrates and north Syria from early in the Holocene have houses, some with elaborate features and bucrania (displayed skulls and horns of aurochs – wild cattle).

The phenomena involved in the archaeological record of these houses are surely the material expression of distinct social practices not seen in the Upper Palaeolithic or most of the Epipalaeolithic, indications of new social relationships and new symbolic roles for households in the first sedentary and agricultural communities at the end of the Pleistocene and early Holocene (Byrd 2005). This paper argues for the institutionalization of the small-scale household as a distinctive set of related social forms within these communities. Evidence from the site of Boncuklu in central Anatolia (Fig. 1), 10 km north of and predating Çatalhöyük by c. 1000 years, allows us to explore implications for household identities and social interactions, relationships with landscape and ritual practice.

The institutionalization of the small-scale household proposed in this paper has been recognized by others with different emphases. Thus, Byrd (1994, 2005) has argued for the emergence of the 'economically autonomous household', with households having an increasing role in production and consumption relative to communal or corporate economic activities. It is argued this is evidenced in the growth in house size, and the compartmentalization and development of specialized spaces within houses during the Neolithic (Byrd 1994, 640). This echoes theoretical frameworks derived from social/cultural anthropology summarized and expressed by Sahlins (1974) as the domestic mode of production (DMP). The DMP model



**Figure 1.** Map showing Konya Plain Neolithic sites mentioned in the text.

raised questions about the role of households in relation to communal level activity and expression, with Sahlins (1974, 78, 95 and 131) advocating the ad hoc and fluid nature of supra-household task-oriented collective action and that centrifugal tendencies typify the DMP. This has been articulated directly in relation to the Neolithic of South-west Asia with the view that the family became the fundamental unit of production in terms of task allocation and control of stored goods (Byrd 2005, 265).

The adoption of the DMP concept, often implicitly and thus insidiously, via Byrd's identification of 'economically autonomous households' has been regular and persistent by those studying houses and households in Neolithic South-west Asia since the early 1990s. For example, Kuijt et al. (2011, 505) have recently concurred with others in suggesting an increase in household autonomy during the PPNB, linking this with Kuijt's own views on the development of extended family households. Düring and Marciniak (2006) and Marciniak (2008) have also argued for the emergence of the autonomous household in Neolithic central Anatolia, suggesting it appears in the Pottery Neolithic/seventh millennium cal BC. Hodder (2014b, 16–17) has suggested the appearance of the autonomous household during the course of the Pottery Neolithic in the sequence at Çatalhöyük. So researchers may differ on the timing, but clearly the DMP model has had a profound and continuing influence on the reconstructions of Neolithic household development.

Several researchers have speculated on the emergence of integrative institutions in Neolithic societies in South-west Asia (Byrd 1994, 640), although most do not do so in a holistic fashion – where the development of households is considered explicitly in conjunction with broader evidence of communal and corporate activity. Rather, they have tended to focus on the evidence of non-domestic structures from PPNA and PPNB sites in the region (Byrd 2005; McBride 2013) such as the monumental buildings at Göbekli (Schmidt 2012), Jerf el Ahmar, Djade, Wadi Faynan 16, Çayönü, Nevalı Çori (Hauptmann 1999) and Beidha (Byrd 1994), and in central Anatolia at Aşıklı (Özbaşaran 2012). These buildings seem designed for ceremony and interaction of people beyond the household level, contexts in which ritual and symbolism clearly played a strong role. Thus, the very apparent emergence of corporate institutions at the supra-household level could be construed as the counter-balance to the increasing economic autonomy of households, performing key integrative functions that allow the development of stable long-term communities in the face of the autonomous tendencies of the household (Byrd 2005, 266). But not all Neolithic settlements show evidence of such non-domestic communal buildings. Corporate institutions are not always apparent at Neolithic sites in the form of non-domestic architecture, even when extensively researched. Çatalhöyük is a good case in point, often challenging researchers (Hodder 2006; Düring 2007, 175) as to relationships between households and wider communities at such sites; indeed, Kuijt et al. (2011, 521) puzzle over this point.

In the absence of evidence of non-domestic structures at Çatalhöyük, Hodder and Pels (2010) have proposed a model of household networks integrated through 'history houses'. These buildings, it is argued, show evidence of the accumulation of symbolic capital, through repeated construction and more frequent burial, and were thus repositories of ancestral authority based on ritually referenced memories and commemoration (Hodder and Pels 2010, 182–83). Ritual practice is seen as promoting interaction through intensely shared experience and attracting support through the accumulation of trophies from rituals and mementos of intensely meaningful, shared experiences. But it is easy to be seduced by the evidence of the built environment. What of communal supra-household corporate activity that may have existed outside such contexts? To understand the place of households in relation to more corporate levels of engagement we need to look at the spaces in between the buildings,

on sites and in landscapes, the spaces where groups larger than those that could live in habitations would have interacted. Indeed, evidence from the site of Pınarbaşı in the second half of the seventh millennium cal BC documents evidence of ritual in the landscape around Çatalhöyük outside the context of the house (Baird et al. 2011).

In parallel with considerations of household autonomy, researchers have considered evidence of the development of Neolithic households in terms of their symbolic and alliance roles. In particular, this has involved discussion of the question as to whether Neolithic houses and households might be representative of 'house-based societies'. The 'history house' concept also draws partly on such considerations, suggesting the amassing and transfer of property and symbolic capital through specific social groups, the focus of more extended networks of houses. Lévi-Strauss identified *sociétés à maisons*, 'house-based societies', as a way of understanding communities whose kinship structures seemed flexible and variable and less important than linkages between descent groups through membership of houses (Carsten and Hugh-Jones 1995). For Lévi-Strauss, such 'houses' at the least were potent social entities for the transfer of property to younger generations of house members and showed significant intra- and inter-household differentiation (Carsten and Hugh-Jones 1995). The definition of house-based societies seems to have broadened considerably at the hands of both anthropologists and archaeologists (Carsten and Hugh-Jones 1995; Bloch 2010) and has had only modest impact on consideration of households in Neolithic South-west Asia, with the exception of Çatalhöyük (Bloch 2010), partly because of challenges in identifying property and its multi-generational transfer in the archaeological record, and perhaps because of limited evidence for intra- and inter-household differentiation. Other weaknesses in Lévi-Strauss' initial formulation include little reference to the house as a physical focus for co-residential groups and as an economic entity, exactly what the DMP model focussed on. The limited traction of this 'house-based societies' concept in Neolithic South-west Asia is interesting given the growing evidence for multi-generational households with strong symbolic identity expression, and the question of the value of this approach as an alternative or as an adjunct to DMP-descended concepts will be explored here. For example, Hodder and Pels, in first advocating their 'history house' concept, adopting and adapting concepts of house-based societies, suggested that 'history houses' may have become much less a focus of social arrangements as households became more independent (Hodder and Pels 2010, 184).

This paper will examine evidence for the institutionalization of the household at one site, Boncuklu, apparently an antecedent to practices seen at Çatalhöyük, and will consider implications for the nature of households, but also communal practice in the absence of current architectural evidence for community-level institutions in the built environment from these sites. It thus explores the origin and key features of these phenomena in central Anatolia, especially possible tensions between households and communal groups in social interaction and in relation to landscape exploitation and other practices.

Boncuklu is located 9.5 km north of Çatalhöyük in the south-west Konya basin, 1000 m above sea level on the Anatolian plateau (Fig. 1). The Neolithic settlement dates to c. 8400–7500 cal BC. The site was located in what was a wetland-steppe mosaic in the early Holocene. Multiple lines of evidence indicate an intensive engagement with local wetlands. For example, inhabitants hunted aurochs and boar, and engaged in fowling, fishing and small-scale cultivation on the wetland fringes (Baird et al. 2012). The hills around the plain were exploited more sporadically for nut/fruit collection, deer and caprine hunting, and access to raw materials including timber and firewood (Asouti and Kabukcu 2014) and stone raw materials (Baird et al. 2012).

## The houses at Boncuklu: structured and repetitive household practices

Boncuklu houses shared a number of common features of construction, layout and use of space that speak to shared and repetitive social practices related to construction, layout and use of the buildings. The buildings were all sub-oval (Fig. 2) and not large, with internal dimensions ranging from 4.6 m × 2.9 m to c. 5.25 m × 4 m. They were constructed with floors below their contemporary ground surface, the whole building footprint set into an oval cut into natural or surrounding occupation deposit or a combination thereof (Fig. 2) (Baird et al. 2012). Where we have evidence the walls were constructed of mudbricks, indicated by surviving foundations and collapsed wall segments; in one case, the walls of Building 6 (henceforth B6; see Fig. 2) were a minimum of 15 courses high. Foundation cuts were either lined with bricks, which probably continued directly up from the foundations to roof level, or the cut was lined with plaster and the brick wall must have sat atop the cut edge.

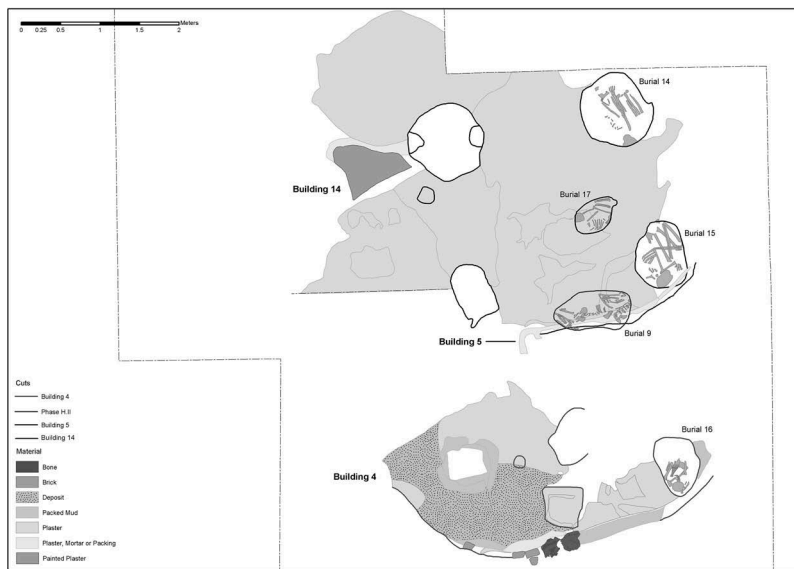
The houses are all oriented north-west to south-east, with a lower and 'dirty' kitchen area with a hearth located at the north-west end, usually occupying c. one-third of the building. The larger south-eastern section was raised above the hearth area and had cleaner, thicker and more extensive marl plaster floors (Fig. 2) (Baird et al. 2012). The 'dirty' areas are characterized by less extensive floor patches which included more organic material, small bone fragments and carbonized plant materials; some patches of floor included hearth rake-out in their make-up. 'Dirty' areas also contained deposits of occupation material, in contrast to the 'clean' floor areas. The plasters of the 'clean' areas are thus distinct through composition and extent, but also maintenance activities, with typically only very thin silt layers less than 1 mm thick being trapped between the regular replastering layers. This is probably material trapped between mats on the clean floors, which are evidenced by tabby weave examples preserved on floors as reed leaf phytoliths e.g. B1.2 (Baird et al. 2012, 226) or as impressions left in the floors when the mats were placed when the plaster was not completely dry, e.g. B6.

'Clean' floor areas are the locations in which, on occasion, the dead were buried during the use of the house (Fig. 3). Occasionally, 'clean' floor areas and adjacent walls were painted and clay reliefs were built against the walls (Baird et al. 2012). Animal bones were built into the walls next to the 'clean' area, but bone tools could be inserted into 'dirty' floor areas as well as being part of



**Figure 2.** Building 6 – showing 'clean' and 'dirty' areas.

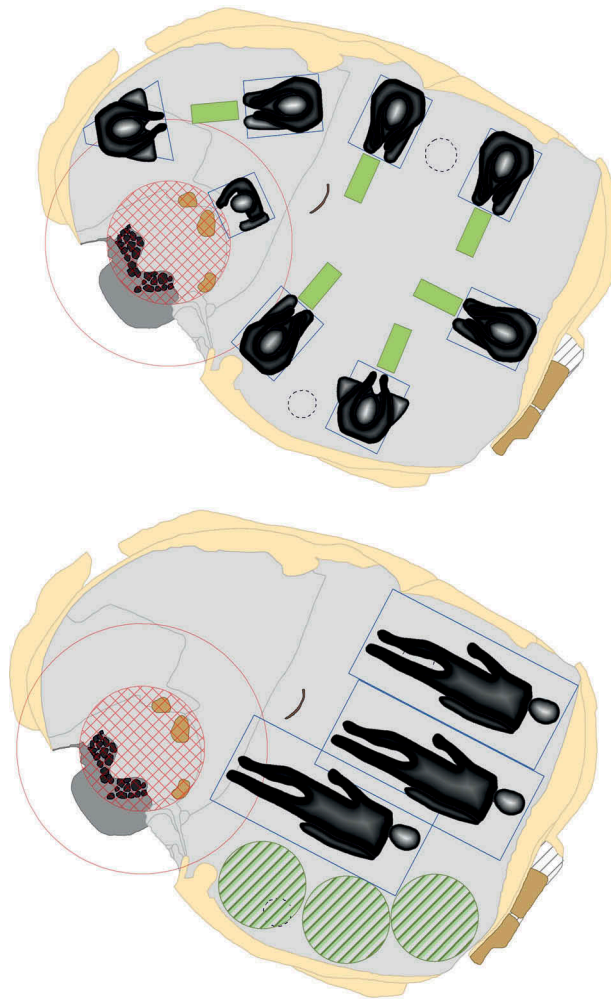




**Figure 3.** Plan of buildings 4 and 14, showing burials and double bucrania (in black).

different practices. Thus, whilst the ‘dirty’ and ‘clean’ areas were constructed differently and obviously designed for different use, this was reinforced by regular and repetitive practices within the different parts of the houses. There was thus a strong and shared experience of household life, bonding the residents together and allowing them recognition of social cues in inter-household interactions. Visualization modelling of the use of space, taking into account some basket storage on floors in the absence of internal storage pits and bins, gives an indication that the space for sleeping could accommodate only two to five adults (e.g. visualization model of space use in B6: Fig. 4, lower) and equivalent numbers of children in residence. The modelling suggests that the space in buildings would afford the co-presence of twice the number of people that might have made up a typical-sized house residence group, when engaged in social and task interactions indoors (Fig. 4 upper). Space for inter-household interactions in houses was thus limited.

The division between the ‘clean’ and ‘dirty’ areas in houses was marked on the floor by a ridge, or distinct lip (Fig. 2) and seems to have been a liminal zone of some symbolic significance. We have excavated several examples of areas of painted floor in ‘clean’ areas, displaying varying extents of paint. The most common distinct locations for paint are the areas over and around burials and the lip of the ridge or step dividing the ‘clean’ and ‘dirty’ areas. Thus, a red painted band demarcated the edge of the ‘clean’/‘dirty’ division on several B6 floors and at least one in B14 (Fig. 3). These painted areas did not exist for very long; they typically only lasted one floor, with very rare repetition on an overlying floor and never for long periods in the life of a building. Other forms of symbolic elaboration seem to persist for longer. B4 had a double bucranium installation (Figs 3, 5 and 6), described in more detail below, overlooking the ‘clean’/‘dirty’ floor divide for much of the life of the building. Other liminal zones were also marked, suggesting they also were of symbolic and possibly ritual significance. The doorway into B6 was flanked by an aurochs horn, which had been inserted into the doorjamb and probably projected into the interior from the wall next to the doorway, early in the life of the building. A brick-built bin (B15) attached to the exterior of B6 had the lower part of the front of an aurochs skull embedded into its wall, possibly at or by



**Figure 4.** Upper: visualization modelling of space use for various activities in B6. Lower: visualization modelling of space use for sleeping in B6, with basket storage. To-scale human figures shown lying down, kneeling and sitting cross-legged.

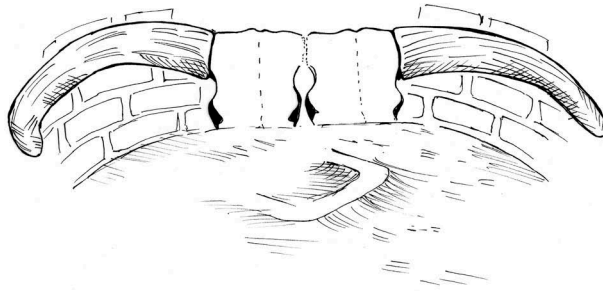
the access point for this structure. This was probably the remnant of a bucranium, the upper, bulkier part of the skull (and horns?) removed at the end of the life of the bin. Thus, the powerful wild cattle may have symbolically watched over or marked areas that were conceptually quite distinct for the inhabitants – within the structures, but also between the inside and outside of the house, and the inside and outside of storage bins. For the bin and its contents, the bucranium may have performed a protective role. Interestingly, this symbolic repertoire draws on parts of animals that were significant elements of the Boncuklu landscape and commonly hunted, a point that will be developed later.

House interiors were dynamic spaces, as indicated by the insertion, covering and removal of elaborate symbolic features. Wooden posts, represented by postholes and occasional impressions in wall plaster, also seem to have been inserted and moved around regularly. In some houses,





**Figure 5.** Double aurochs bucrania, under excavation in B4 (visible upper right).



**Figure 6.** Reconstruction drawing of possible appearance of double aurochs bucrania in B4. Wall and floor plaster were present covering the original, but are not illustrated in the drawing.

these were certainly not elements integral to the construction of the house. Some houses are built initially without posts, and in many houses there are floors without any sign of posts (Baird et al. 2012). Where they did occur posts were moved around frequently in houses, often lasting between two and four floors, as for example in B2 and B9. The posts are often replaced in similar locations, near either end of the ‘clean’/‘dirty’ floor area division, most frequently at the south-west end of the division. They were sometimes paired at either end of the floor division but often not. They may have been inserted as occasional roof support elements to adapt to very local roof degradation. The fact they were not integral to the structures and of short duration in specific locations, like painted floors, raises the possibility they may also have served purposes other than roof support. For example, they may have been carved or decorated, as with some stone and clay pillars in Neolithic buildings, e.g. Göbekli (Schmidt 2012), Jerf el Ahmar (Roux et al. 2000) and Qermez Dere (Watkins 1990). They may therefore also have marked symbolically significant moments in the lives of houses. Their placement, however, at the dividing line between floor spaces suggests that they structured the use of space and distinct activities, similarly to the red-painted, lipped floor ridges. No wooden posts survive in situ at Boncuklu. Wood from local wetland tree species was certainly used on site, but so was timber from more distant locations, including some of the material most suited as structural timbers – oak, juniper, terebinth and almond (Asouti and Kabukcu 2014, table 1) – which must have come from the hills and their fringes over 15 km away and which is thus evocative of landscapes and activities not immediately local to the settlement.

While the Boncuklu houses display a general schema in terms of a structured use of space and the marking of spatial divisions, specific symbolic elements are deployed in an individual fashion

within houses. B4 had a double aurochs bucrania (Figs 5 and 6); B6 had a single aurochs horn next to its entrance in its early phases, and a boar's tusk found in collapse on the final floor may have been inserted in the upper walls. B21 had an aurochs bucranium on its final floor trapped by wall collapse; it was probably originally in the upper wall. B1.2 had the only painted clay and plaster relief (discovered to date) on its north wall, opposite its entrance (Baird et al. 2012, fig. 9); B9 had a very extensive floor covered with red paint; B14 (Fig. 3) and B6 both had floors painted red to demarcate the 'clean' and 'dirty' areas; and B12 had various areas marked with red paint. B6 had a design of two curved lines, set side by side but running in opposite directions, produced by the pressing of hackberries into the plaster floor near the hearth. This was one of the few clear instances of the use of plant remains as part of the symbolic elaboration of buildings and in a 'dirty' area, although one suspects others using organic materials existed but have not survived. This symbolic repertoire thus seems to express individual household identities as well as broader community ritual and symbolic concerns. It seems likely given the presence of ritual and symbolic elements in the 'clean' area and the focus on liminal spaces that the very division into 'clean' and 'dirty' areas was symbolically charged and a key part of the households' worldviews. The intensity of use of these areas speaks to significant bonding of household members in relation to distinctive symbolic paraphernalia and associated ritual practice, important in the building of household identity.

### Intensity of use and symbolic expression

The dynamism of the Boncuklu houses is clear: as well as the regular creation of various features and fixtures, the buildings had between 10 and 25 episodes of extensive plastering of their larger 'clean' floor area. Ethnographic observation (Boivin 2004, 171), especially in the Konya plain (Matthews 2005, 361), strongly suggests annual plastering of the floors of mudbrick buildings is typical when using less durable, clay plasters, which tends to occur in the summer when the plasters would dry relatively quickly. Two experimental Neolithic mudbrick houses were constructed at Boncuklu in summer 2014. The floors, replicating the thickness of the Neolithic examples and using local marl plaster, took 10 days to dry; a replastering in summer 2015 took c. seven days. This suggests floor plastering would have been a significant event in the annual life cycle of house use and maintenance in the Neolithic, and that plastering the whole floor was unlikely to have been more frequent. An annual plastering coincides well with Bayesian analysis of our carbon-14 ( $^{14}\text{C}$ ) dates for the Boncuklu Area K sequence (Baird and Fairbairn *Forthcoming*). This would suggest buildings lasted between 10 and 25 years. An annual plastering is suggested by Matthews (2005, 368) on similar grounds for Çatalhöyük, with more restricted or lighter plaster probably applied there on an intra-annual basis.

Decoration, deployment of symbolism and ritual practice were more sporadic than the maintenance of the domestic facilities, but could also see relatively intense episodes. For example, the ninth and eleventh floors of B9 were painted; the ninth saw painting over an extensive area of the clean floor, but the eleventh was restricted to near the 'clean'/'dirty' division. The eleventh floor saw a burial, Grave 12 (Gr12), of an adult male 50 years old or older. Thus, symbolic acts marked within these buildings were not frequent, but probably therefore more charged (Whitehouse and Hodder 2010), signalling and recording important events in the life of the household, often several years apart.

Sometimes, however, ritual and symbolic practices could be more intense. A clay and plaster relief attached to the north wall of B1.2 was remodelled to a significant degree four times and was

plastered approximately 40 times, each plastering painted red (Baird et al. 2012). Layers of black organic sooty material, coating many paint layers, point to the desire to keep the red colour fresh. This replastering and repainting related to only one or two floors, and so probably occurred over a time period of one to two years. Following these assumptions, this relief would have been potentially repainted on the order of twice a month. The repeated attention paid to this relief gives an indication of the intensity of ritual and symbolic practice at key phases in the life of households. Sadly, we are not able to say precisely what this relief represented; it seems quite elaborate, with several elements, and originally continued up the wall some distance, but was truncated by bulldozing to which the site was subject some years before our work started. Its location, however, is quite telling: opposite the entrance, one of the first things to be seen as one peered into or entered the house. Designed to catch the attention of those entering, this relief may well have been important to the identity of this particular household, distinguishing it from others, as the double bucranium would have in B4. These examples serve as an indication that distinct, individual, low-frequency rituals in houses bound together household members and helped create households as institutions (Whitehouse and Hodder 2010).

### ***The animate and transcendental house***

Human bodies are clearly a strong source of symbolic reference in many societies, frequently categorized into different zones, some associated with purity and impurity and with emphasis on maintenance of boundaries (Bowie 2006, 34–79). At Boncuklu, the house – the body of the household – seems also divided into symbolically significant elements, some clean and some dirty. As with a body, the Boncuklu Neolithic house was maintained and at times decorated with red paint. Some human burials from the site were covered with ochre; human skulls were occasionally painted before burial, both suggesting the possibility that the living body could also be painted. As for people, houses had significant moments in their life cycles marked by ritual, interlinked with those who inhabited – or were affiliated with – the household. Some of these moments likely involved human rites of passage, which may also have been rites of passage for the house. There are indications, discussed below, that houses had rites of passage associated with their birth and death, analogous to those of humans, and that household groups were keenly interested in representing a transcendental nature of the animate house (Baird 2012, 459–60; Guthrie 2014, 97–98; Hodder 2014a, 342–43).

Boncuklu, c. 8300 cal BC, seems to stand at the beginning of a long tradition of emphatic long-duration repetitive reconstruction of the house in the same location so well documented at Aşıklı and Çatalhöyük (Baird 2012; Özbaşaran 2012; Hodder 2006), and seen also at Canhasan III and I (French 1998). Houses are constantly rebuilt on the same location, showing much direct continuity, rather than just formal similarity in use of space. As indicated above, this is seen in other areas of Neolithic South-west Asia (Kuijt et al. 2011) but rarely with the high frequency and longevity seen in central Anatolian Neolithic.

To date we have evidence of 21 buildings, completely or partially excavated, at Boncuklu that we consider domestic residences, three buildings we consider do not conform to the classic features of the residential structures, and a further structure best interpreted as a large storage bin (B15). In all cases where we have excavated stratigraphy predating a building in a given area, there is evidence for one or more immediate predecessors; this includes the three non-standard buildings which form a single sequence.

There was much open, un-built space at any given point in the life of the settlement – so rebuilding in the same location represents a conscious decision rather than a necessity (Baird et al. 2012). Unlike at Aşıklı Level 2 or Çatalhöyük, house rebuilding at Boncuklu does not utilize earlier walls, which then serve as stable foundations, and so might be seen to have a utilitarian purpose. Rather, the earlier houses were dismantled and the replacements were cut into the earlier buildings, or the footprint of the earlier foundation was reused, in this last case resulting in houses becoming smaller.

The longest and only completely excavated sequence is in Area K (Fig. 7) and consists of six buildings one immediately atop the other: Buildings 2, 9, 7, 3, 1.1 and 1.2 from earliest to latest (Baird et al. 2012). In Area H (Fig. 7) there are two closely juxtaposed and possibly inter-related sequences, one of two buildings (B14 and B5) and the other of three buildings (B12, B8/11 and B4). Both of these sequences may originally have had later buildings since eroded/destroyed. In Area P (Fig. 7), there is a sequence of three buildings: B17, B21 and a third inferred largely from negative features cut into B21, apparently conforming to a similar footprint as B21. In Area N (Fig. 7) there is a sequence of two buildings one atop the other: B6 followed by B10. In these three areas, H, N and P (Fig. 7), earlier buildings may be present, predating the earliest yet excavated in each of these excavation areas. Thus, at Boncuklu as at Aşıklı and Çatalhöyük, there were sequences of up to six buildings.

Direct continuity between houses is apparent in a number of ways at Boncuklu. The hearth of each of the six buildings in the Area K sequence was always reconstructed in the same place. Indeed, the rim of the hearth of B2, the first in the sequence, was used as the foundation for the rim of B9, the second building in the sequence. The boundary between the internal spaces was constructed in exactly the same location in B2 and B9, even though the recreation of this boundary was reserved until the third floor of B9, so probably after a gap of two to three years.



**Figure 7.** Plan of Boncuklu showing excavation areas.

Particularly telling was the reconstruction of posts in more or less the same location, even when there are gaps of several floors between the insertions of posts in sequences of buildings. As discussed above, these posts are not in these locations because they were integral to the structures.

Direct continuity is attested in other ways as well. Thus, Gr10 in B3 (Baird 2012, fig. 23.10) was not completely filled, nor sealed by a plaster floor, like other *in situ* burials in buildings. Rather, the mudbrick foundation wall of overlying B1.1 was slotted into the top of this grave cut, indicating that the burial was inserted at the end of the life of the structure and that B1.1 was almost immediately built over B3 and Gr10.

### The house as symbol

As discussed above, the dead were buried under the 'clean' floor areas within houses (Fig. 3). Their presence was a constant feature in those houses with burials; residents were probably aware through memory of the burial locations and identity of these individuals, given the probable lifespan of the houses. However, not all the dead seem to have been buried under houses, as discussed below. Despite houses being relatively short-lived, there seem to have been too few burials to represent all residents of each house. For example, in the Area K sequence, c. 60–100 years in duration, one adult and one child were buried. Two other infants might have been buried in this sequence, their remains redeposited in Gr12, probably earlier burials disturbed by the cutting of Gr12 in the same location. One would expect several adult deaths, and possibly at least an equal number of children, amongst residents of the six houses in Area K. There is some variability between sequences in this regard. In Area H, buildings had slightly more burials: B12 had two burials, an adult and child, and the overlying B4 two adults (Fig. 3). In the B14 and B5 sequence there were three adult (Fig. 3) and three child burials, and one possibly opened child burial. In Area H these numbers are more plausible as the relevant residents who might have been available for burial over a 20–40-year period. However, in Area N the B6–10 sequence has revealed no burials, although there are several of the earliest floors of B6 left to excavate. Certainly, in Areas K and N there seem insufficient burials.

It seems likely that certain individuals most closely identified with the house, alongside other factors possibly relating to manner of death, were buried in houses. Over the period of occupation of a house and its successors, the presence of burials was attested by the constant slumping of these areas. Gr12, for example, was visible through the life of B9 and all subsequent four buildings in this area. The burial was sometimes marked by the painting of the area, or part of the area of the slump. These acts of memory and commemoration ensured the dead were an important part of the foundations of the house both physically and metaphorically, and thus the choice to build over dead ancestors, biological or fictive kin, was clearly an important one.

Repeated construction in the same location was a symbolic statement of continuity and of the transcendence of the household beyond the life of the individual house, and a statement of success of social and biological reproduction of the household. Beyond this, then, the placement of the house over the preceding one ensured the continued actions of the living over the dead. The living did not just live with the dead and ancestors under their immediate floor or floors but with their ancestral houses beneath them as well, surely a powerful motivation for house continuity and a factor emphasizing the symbolic continuity of the house.

This close identity of house and household, dead and living, suggests the dead and living may have been viewed as an important continuity, whose maintenance was ensured by on-going

proximity. This seems very likely for Çatalhöyük where the bones of the dead were accessed, retrieved and redeposited in later houses, notably skulls, teeth and limbs (Hodder 2014b, 16). At Boncuklu there is some evidence for the retrieval of the dead at the end of the life of one house – in B21 a burial-type pit in the clean area was located in the final floor of the building and was not sealed with plaster. However, there was no articulated skeleton within the grave; rather, a few human remains were found scattered in the upper fill. It may well have been a reopened grave, with most of the body removed at the end of the life of this house. Floors seem to have been chiselled away around the cut, as if people were searching for it. The grave was partially open when the building collapsed or was dismantled, as bricks had fallen into the top of the cut. At the base and on one side of the pit, an additional cut was made and a canine jaw placed in it – perhaps a symbolic act marking the retrieval. In B14 retrieval of the dead is also likely. The last floor, plastered over an oval pit, a typical shape and size for a grave, had been broken through. Intriguingly, a collection of boar bones had been placed in the pit, possibly marking a distinct consumption event associated with the retrieval act. In Gr12 in B9, remains of two children were scattered in the fill, possibly retrieved from earlier burials in the house sequence. A large grave-like pit in B12 had a sickle blade placed at the base of the pit, which may have been emptied of a human body, although this pit may indeed have served other functions.

This symbolic identity between house and household may have received other ritual and symbolic expression (Baird 2012). There are indications that the house was perceived as a body in ways analogous or metaphorical to those of the dead bodies buried under the floors. The earlier 'dead' houses in sequences were in effect buried as well, so ancestral houses underpinned later houses, just as ancestral individuals provided marked reference points for later residents. There are striking ritual elements to the dismantling of the house at Boncuklu that continue into the later site of Çatalhöyük (Nakamura and Pels 2014, 205–06) in the area. At the end of the life cycle of the house, the roof (the head of the house) was removed and beams probably reused. In analogous fashion skulls were taken and circulated at Boncuklu, although, interestingly, not from humans who remained buried under house floors; they may, though, derive from the retrieved burials. The posts were removed and probably reused during and at the end of the life of the house – possibly like disarticulated limbs of retrieved burials. The ritual nature of post removal at Boncuklu is indicated by the placement of finds in empty postholes seen in B21, where a bear figurine (possibly purpose-made) and obsidian core (Fig. 8) were placed in one post hole and a bone point and obsidian microlith in another. The bone point was unusually fine and sharp, possibly made for the purpose of this deposition, and seemingly unused. The occurrence of a bear figurine within such a context is interesting given the bear reliefs at later Çatalhöyük, so the symbolic significance of particular animals, also important later in the area, is clear here. Continuity of symbolism is again apparent, and begs questions about the symbolic significance of the wooden posts during the life of the buildings as suggested above. A bone point was placed against the edge of the wall of B3 on the construction of B1.1 suggesting bone points may have had a special significance in building closure. Bone points, as with obsidian tools, were probably personal kit, perhaps associated with their makers or users. Whatever the associations, it seems that the bear figurine, obsidian tools and bone points (incidentally made of uncommon caprine bones) are all redolent of the hills and distant places, or are made from materials brought from far away. These objects were used in some form of symbolic exchange for structural elements which themselves probably derived from the hills, presumably designed to satisfy various cosmological forces.

These practices are long-lived – analogous deposits are also seen at Çatalhöyük with obsidian points, and human and animal bones and skulls, placed in post retrieval pits (Hodder 2006, 130–31),





**Figure 8.** B21, bear figurine and obsidian core in posthole.

and things placed on top of posts in burnt buildings, on ovens and in storage bins – famously, figurines in the last case (Hodder 2006, 130). At Catalhoyuk, also, we see burials that were not plastered over (e.g. in B52), where sub-adult dead were gathered into a final grave, which may relate to building closure (Carter et al. 2015, 103).

The house, then, received special treatment at death, but aspects of this may have related to ensuring the seamless and successful rebirth of the house. Certainly, other practices that relate specifically to the foundation of the house seem important – the bone point against the wall of B3 behind the new wall of B1.1 has been mentioned. The burial of a perinatal child in Gr10, B3 (Baird 2012, fig. 23.10), had the wall of the following building placed in the top of the grave cut. At Çatalhöyük, neonates and young children seem important foundation burials as well (Hodder 2006, 117; Carter et al. 2015). The symbolic significance of the hearth continuity (Baird 2012, 452) discussed above was probably very important for these households, matching the broader significance of building continuity, given the hearth was a locus of cooking, demonstrated by burnt, smashed-up bone in hearth rake-out, observed in micromorphological thin section, and also as a locus of heat, vital in the cold winters of central Anatolia. Other foundation-ritual acts we have documented include the placement of a double aurochsen bucrania into the foundation cut for B4 (Figs 3, 5 and 6), at the ‘clean’/‘dirty’ space division, and the placing of a bucranium in the wall of storage bin B15. Aurochsen were the largest, most powerful animals roaming the Konya Plain, and their bucrania may have conveyed protective power over the house, or reinforced links between the animal spirits and activities in the buildings, transferring the agency of the animal spirits to the

buildings; or the prowess of the aurochs killers underwrote the continuity of the household. Indeed, combinations of such beliefs may well have operated.

The animate house, like people, had things associated with its activities. The things of the house were sometimes returned to the house: tools that maintained the house were buried in the house. Boar and deer scapulae in B6, probably digging and plastering tools, were buried in specially created shallow pits near the hearth in the 'dirty' floor area (Fig. 9); they were plastered in so they became non-retrievable, echoes of the inclusion of a boar scapula, which had probably been used for digging, as a grave good in Gr16 in B4. In B6 near the scapulae, a large aurochs limb bone hammer was inserted into a disused posthole. In B6 a large aurochs rib had been plastered into the final floor, possibly a tool used to create the floor. An animal scapula, probably boar and probably a digging tool, was built into foundations of B23. These tools created and sustained the house and household during their use life, and their ritual deposition was probably designed to sustain the house in the longer term.

Other deposits may have been intended for retrieval. Obsidian caches were deposited in houses, as at later Çatalhöyük. Excavated examples include a group of 16 bladelets with no retouch, in a shallow pit grubbed out of the southern edge of the 'clean' floor of B6. They had been plastered over. It is unclear whether they might have been available for retrieval, or a deliberate deposition like the scapulae in earlier phases of the same building. Also, in the north-west of B6, in a cut into the 'dirty' area, what was probably a small bag contained 32 obsidian tools. Again, it is not clear whether they were a ritual deposit or a cache available for retrieval and use. We do know obsidian was suitable for ritual deposition, as documented above, deposited in the postholes of B21. It is possible the obsidian caches could have been retrieved without damage; the deposition of these tools may have been an aspect of on-going exchanges between the animate house and its occupants, or they may have represented behaviours similar to those relating to bone tools.

This evidence suggests a symbolic identification between house and household (Baird 2012, 459–60) and a magical and symbolic promotion of the transcendental qualities of these households. Institutions transcend individuals and generations, and it is in this sense we can suggest an institutionalization of these households with potentially profound effects for their communities,



Figure 9. Deer and boar scapulae in B6.

which we now explore. In particular, it is pertinent to query how much households as institutions may have encompassed some of the principal tasks with which people were engaged at Boncuklu, and whether these households were the exclusive institutions for the negotiation of social interaction.

### **Beyond the house: inter-household and communal activity at Boncuklu**

Given the limited space in houses for inter-household interactions discussed at the beginning of this paper, larger scale social interactions would have occurred in open areas between the households, and there was apparently much suitable space available (Baird et al. 2012). Approximately 65% of the current excavated area is empty of buildings. Such outdoor spaces were dominated by midden accumulation, presumably from both household cleaning and activities between structures. In addition, there seem to have been toilet areas in these open spaces in the middle of the settlement. In Area M (Fig. 7), the most extensively excavated area of open space, there were a number of hearths and fire installations (Baird et al. 2012), indicating the probability of cooking and food preparation in external areas, probably seasonally variable and at a more communal scale. A wide range of chipped stone tools in these open spaces also suggest some crafts were probably pursued externally, allowing households to cooperate in these activities as well. Activities in these open areas certainly included butchery; whilst most animal bone is highly fragmented and processed, there are various locations in these outdoor areas with concentrations of larger fragments of animal bone that seem to relate to specific limited episodes of carcass processing and butchery. In particular, a large collection of large fragments of animal bone in the shell of B20 in Area P result from relatively short episodes of very large-scale food preparation. While a mix of processes and events may have contributed to this accumulation, some of these are likely to have related to feasting; given the quantities of meat produced these would have included large-scale events.

Such inter-household activities probably relate partly to communal activity beyond the settlement. Hunting large aurochs, equid and boar were quite likely group activities involving people from several households, as depicted in the later Çatalhöyük wall paintings, c. 1500 years later. Gathering wood and reeds (used in crafts, construction and fuel), gathering fruits and nuts, and cultivating cereals and legumes around the wetland fringes may also have involved inter-household activity. A key question, then, is the extent to which inter-household activity generated coherent formal social groups that transcended individual short-term tasks. In particular, were such communal interactions largely an element of fluid, ad hoc and temporary economic measures, in contrast to the symbolically significant continuities stressing the institutionalization of small-scale households at Boncuklu?

There is significant evidence that communal ritual practices, especially mortuary practices and ancestral practices, were important at Boncuklu and may have contributed to supra-household corporate identity. The insufficiency of dead under Boncuklu house floors may be partly accounted for by burials in open areas. Burials are found within midden accumulations in various phases of activity in Area M (Fig. 7) and probably in open areas in other parts of the site as well, interspersed between phases of hearths, and so in areas important for the communal food preparation and consumption. We can document seven definite single articulated inhumations in outdoor spaces (as of the 2015 season). Some of the Neolithic burials (11) in the upper stratigraphy of various areas were probably also outdoor burials, but we cannot be certain about this group. The characteristics of outdoor burials do not distinguish them from the burials under house floors.

Most were as deep as the in-house burials, but some do seem to be shallower. There is the same mix of ages and sexes as under houses: males and females, younger and older adults, perinatal individuals and other infants. As with the houses, some burials do not have grave goods and some do; grave goods range from a small number of items to a few individuals with many items. For example, Gr49 in the exterior space in Area M had 56 marine shells, some in a necklace around the individual's neck.

In close proximity to these outdoor articulated single inhumations, comparable to the house burials, were a series of other mortuary deposits that show a range of additional practices. Skull circulation and deposition in outdoor areas seems common. There was a cluster of pits with skull fragments around the inhumations in Area M, including one large pit with fragments from several skulls, one small pit with substantial elements of three skulls within it, and skull fragments scattered in middens in Areas H and M (Fig. 7). In Area K, a small pit (Gr13) contained a single inverted skull, showing significant signs of wear, as if it had been in circulation for some time. It had been placed on a pile of ash, suggesting a significant secondary mortuary ritual. Gr43 in M had a number of elements of human bone at its base, on which were placed ochre, a large polisher/grinder and a scatter of marine shell beads; on top of these artefacts was placed a painted skull. Apart from the circulation of skulls as part of ritual practices, this evidence also indicates some manipulation of disarticulated remains, e.g. those that underlay the skull in Gr43, along with the fact the skull in Gr43 had been painted with red pigment. In addition to these instances, a large pit, F306, contained the disarticulated remains of six individuals (Pearson [Forthcoming](#)), long bones arranged on its base, and three skulls piled at one end (Fig. 10). As part of such practices, deposition of large ground stone tools, our largest excavated axe and other ground stone objects, seems to have occurred near the burials, skull pits and F306 in Area M.

At least some of the dead missing from the houses are likely to have been buried in these open spaces in the middle of the settlement, and indeed some may have been subject to disarticulation. The detached skulls do not appear to derive from skull retrieval from house burials (as in the PPNA and PPNB of the Levant), as all articulated burials under houses have skulls present, although they might derive from instances where whole bodies were retrieved from houses. The potential instances of body retrieval from houses are few, so it seems likely the skulls may be related to



**Figure 10.** Feature 306, disarticulated human remains.



the disarticulation practices documented in the mortuary deposits in the outdoor, communal areas of the site. Pearson has carried out carbon (C) and nitrogen (N) stable isotope analyses of the individual skulls found in outdoor areas, those in deliberate depositions and pits and those fragments scattered in middens. This suggests that the isolated skulls and skull fragments, as so far analysed, were from individuals whose diet was distinct from those buried under the houses (Pearson [Forthcoming](#)). These skulls could represent heads from other communities, or skulls from sets of households not yet excavated at the site or, alternatively, individuals who derived from the typical household groups as so far excavated, but who belonged to corporate groups, with whom they shared in regular communal food consumption of rather different sets of food from those buried in the houses. This would then support a view that there were some aspects of communal groups institutionalized by regular food consumption activities, regular and long term enough to be indicated in C and N stable isotopes in bone collagen, and thus averaged over several years. These groups were also marked and given identity by distinctive communal rituals in open spaces between the houses. These groups may also have been institutionalized and claimed transcendental qualities with reference to ancestors whose skulls circulated in outdoor rituals. In this way the household may have been symbolically disarticulated at death, just as its members were socially distributed through the community's different task and alliance groupings or institutions.

The disarticulation and sharing of elements of the dead, especially skull parts, was not restricted to humans, of course. Animal parts too, especially aurochs' skull elements, may well have been shared between houses; the single aurochs horn next to the entry of B6 suggests the other horn was elsewhere. The right and left sides of the two bucrania in the B4 installation ([Figs 5 and 6](#)) had been chopped off in fitting the skulls into the wall foundation; one horn was removed from each skull, possibly as part of the artifice of creating a massive bucranium or double head. This would have yielded two horns that could have been shared with other houses or people, perhaps some of those who participated in the aurochsen kill or to cement relationships between households in a transfer of ritual power or animal spirit agency. This implicates these animals in sharing in inter-household ritual practices. Dead people, like dead aurochsen, confirm important relationships between households and contribute to peoples' roles in broader corporate groups.

## Decorated stones

There are a series of decorated grooved stone tools (often called shaft straighteners) and stone plaques at the site, as seen in other ninth to eighth millennium sites, but in unusually high frequency at Boncuklu: over 100 have been found to date. Much of the decoration on these items is of a geometric nature, but still probably with strong symbolic elements. There are, however, some items that have naturalistic representations that may give us clues about the symbolic concerns of the wider community. These items as a whole seem most clearly associated with individual personal identities, although they are not found in primary association with burials. They are not found deposited or abandoned in houses, probably indicating their use around the settlement and beyond, likely in supra-household group contexts, preparing hunting gear and/or other craft activity. They are very individual items and seem highly personalized; each is unique in form and decoration combined. They are also highly worn before discard, strongly suggesting curation by the individuals to whom they belonged, and intense use and portage.

Because these objects would have been seen in settings of supra-household group activity, their imagery might suggest important reflections of wider belief systems captured in individual perspective. More naturalistic representations include possible dancing figures (examples include

individual figures and sets of figures; Fig. 11), underlining the view that such group ceremonies may well have been important and a context for the deployment of the stone plaques. A fish (Fig. 12) suggests the importance of fishing, indicated in the faunal assemblage; a tree (Fig. 12), other vegetation and cereal plants suggest not just a focus on humans and animals but the perceived role for the symbolic significance of vegetation, and specific parts of the landscape, perhaps some more distant such as wooded hills. Cereal crops, farmed to modest degrees (Baird et al. 2012), may well have been of interest because of the distinctive parts of the landscape in which farming was carried out, on wetland fringes, or evocative of social dimensions of crop management. The most complex image seems ambiguous and may be seated people or a deer head (Baird et al. 2012: Fig. 13). In this repertoire there is little evidence of the dangerous wild animals supposedly documented elsewhere (Hodder and Meskell 2010), although at Boncuklu the bucrania might be seen as such. Rather, this symbolism references aspects of animals, plants and landscape more broadly.

There is also a wide range of geometric motifs (Fig. 13); elsewhere these have been seen to derive from more naturalistic examples, and researchers have suggested stars, the sun, mountains and rivers may be present in this repertoire. This may well be the case, but making specific interpretations is difficult. Stars, mountains and the sun are plausibly present in motifs at Boncuklu; in two cases there are what may be schematic fish designs – in contrast to the more naturalistic



Figure 11. Boncuklu decorated stones – dancing motifs.



Figure 12. Boncuklu decorated stones – fish and tree motifs.





**Figure 13.** Decorated stones – geometric motifs.

depiction mentioned above. Dots may prefigure leopard markings on later art (Fig. 13). Indeed, many of the geometric motifs seem similar to aspects of later wall art at Çatalhöyük. Elsewhere, the naturalistic motifs are different; in North Mesopotamia, insects, bees or butterflies, snakes, raptors, solifugids, scorpions and centipedes dominate the repertoire of the decorated plaques and grooved stones (Özkaya and Coşkun 2011; Schmidt 2012). Thus, local identities may have been expressed through the designs on these objects, probably reflecting shared symbolic worlds

of the relevant communities. There are obvious contrasts between representations on the decorated stone repertoire and the symbolic emphasis on aurochs and boar in the house bone deposits. It may well be that the ideological worlds referenced by the stones were more the concern of community groups and institutions.

## Conclusions

Boncuklu households were institutionalized through repetitive practice, highly structured and symbolically charged domestic activity, and symbolism stressing the animate and transcendental nature of the house, relating to continuity, and idiosyncratic identity display. However, the evidence also suggests households were strongly integrated into institutionalized corporate activities, economically, socially and ritually, evidenced in practices in areas between houses and probably in the landscape (Baird et al. 2011). The evidence indicates the emergence of households as institutions that transcended individual generations with strong, symbolically marked identities, identities drawing upon their landscape exploitation activities, and households with important roles in structuring social activity. This cannot be taken to indicate a reduction of institutionalized communal economic activities or corporate identities related to such economic practices for this or, indeed, other Neolithic communities, in contradiction of the DMP model. It further suggests that those corporate groups indicated by the presence of large non-domestic structures were just one element in, and facet of, a range of such supra-household entities that were neither a direct correlate of, nor counter-balance to, the increasing economic autonomy of the household.

The development of households with such strong, structured, transcendental and formal identities is in accord with house-based society models (Bloch 2010), but is likely to have demanded new forms of inter-household interaction and communal activity. The Boncuklu evidence suggests supra-household groups were reinforced by their own distinctive ritual practices and symbolism in parallel with and probably in a certain tension with the cohesive tendencies of individual households, a broader context little considered in house-based society formulations. More speculatively, new forms of corporate groups may have been involved in the negotiation of landscape exploitation for hunting, for cultivation and for the accessing of more distant resources. In the Boncuklu case, such more distant resources would include timber (Asouti and Kabukcu 2014), nuts, sheep, goats, bear and deer, stone for ground stone tools and ornaments from 15–40 km away, some of the flint from up to 200 km away (Nazaroff, Baysal, and Çiftçi 2013), obsidian from c. 150 km away in Cappadocia and seas shells from the Mediterranean c. 220 km away or possibly farther.

The coevolution of household and communal ritual and symbolic practices, and household and corporate institutions, must have related to the small and fragile nature of households. These necessarily had significant risk of dissolution through inter-related biological, economic (Sahlins 1974, 95 and 131) and social factors, connected to aspects of biological reproduction, economic capacity and social alliance involving small households. It is in this context, then, that we should understand the desire to assert continuity through symbolic and ritual practices, and protect against both the centrifugal tendencies of social forces (Sahlins 1974, 95) and risks inherent in the various forms of landscape exploitation with which the households were engaged. Continuity of distinct and identifiable household units and familiarity with their social practices may have allowed easier negotiation within the wider community of access to landscape resources. Interestingly, this may also be related to a situation of risks to cereal cultivation in this type of wetland landscape and its integration with traditional wetland exploitation. Connections with the landscape were as important symbolically as economically in the evolution of household participation in the community. At

Boncuklu, agricultural practices seem to have increased the symbolic repertoire and were not symbolically distinct or underrepresented within that repertoire, as has been suggested at Çatalhöyük (Hodder and Meskell 2010). Landscape and taskscape were thus a symbolic as well as an economic resource, agricultural or other, in building formal roles for households, even though often exploited and encountered in supra-household as well as household groups. Such evidence and these interpretations sit uneasily with house-based society perspectives on households, which show little interest in the transactional maintenance of household continuity and identity and often stress emergent differentiation between households.

This evidence and these interpretations do not support the emergence of economically autonomous households in this area and time period of the Neolithic, despite the appearance of households as institutionalized, formal and transcendental social entities. It could, then, be argued that such entities emerged later in the Neolithic as Kuijt et al. (2011), Düring and Marciniak (2006), and Hodder (2014b) have suggested. If correct this would suggest a very long period of sedentary behaviour, and of cultivation and herding, before the emergence of economically autonomous households. For example, in the case of the Konya Plain this would mean that autonomous households emerged at least 2500 years after the first houses were built at Pınarbaşı (Fairbairn et al. 2014), and almost 2000 years after the first houses were constructed at Boncuklu. However, this evidence and these considerations suggest that even this case for the emergence of autonomous households very late in the Neolithic of South-west Asia cannot be advanced without fuller consideration of the complementary evidence for the nature of inter-household and corporate interaction, which, as the Boncuklu evidence shows, can often be less evident in the record than might be indicated by the presence of very obvious communal buildings, or can result from an over-focus on the archaeology of probable residential buildings. This echoes the need for a more transactional and agent-based understanding and study of archaeological community (Yaeger and Canuto 2000). It also suggests that the emergence of households as symbolically significant multi-generational institutionalized social forms was quite distinct from the development of household economic stability and independence in production and consumption.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Funding

This work was supported by the Australian Research Council [DP120100969]; British Academy [BARDA BR100077, small research grant SG-46145]; British Institute at Ankara; National Geographic Society [8566-08, GEFNE 1-11]; Gerald Avery Wainwright Fund for Near Eastern Archaeology, University of Oxford.

## Notes on contributors

**Professor Douglas Baird**, University of Liverpool, researches the appearance of sedentary and agricultural societies in Neolithic South-west Asia; and long-term settlement history in Anatolia through landscape archaeology. He has directed field projects concerned with the appearance of early complex societies and urban communities at Tell esh Shuna in Jordan. He directed the Konya Plain Survey in central Anatolia, 1995–2002. Most recently he has directed excavations at the Epipalaeolithic and Neolithic sites of Pınarbaşı and Boncuklu in the Konya Plain of central Anatolia, the latter with Dr Andrew Fairbairn.

**Associate Professor Andrew Stephen Fairbairn**, University of Queensland, is an archaeologist and archaeobotanist specializing in the analysis of ancient plant food production and trade systems. His research spans South-west Asia, Europe and Australasia; recently he has focused on understanding long-term economic and environmental change on Turkey's high plateau. He is co-director of the Boncuklu project and has on-going archaeobotanical projects at Kaman-Kalehöyük, Büklükale, Canhasan III and Kültepe in Turkey, as well as Pompeii and various sites in Papua New Guinea.

**Dr Louise Martin** is a reader in zooarchaeology at University College London Institute of Archaeology. Her research explores the role of animals in prehistoric societies in western Asia, with a focus on hunting practices in the Levantine Epipalaeolithic, and human-animal relations at early Neolithic village sites in central Anatolia and Jordan.

## References

- Asouti, E., and C. Kabukcu. 2014. "Holocene Semi-Arid Oak Woodlands in the Irano-Anatolian Region of Southwest Asia: Natural or Anthropogenic?" *Quaternary Science Reviews* 90: 158–182. doi:10.1016/j.quascirev.2014.03.001.
- Baird, D. 2012. "The Late Epipalaeolithic, Neolithic and Chalcolithic of the Anatolian Plateau, 13000–4000 BC calibrated." In *Blackwell Companion to Near Eastern Archaeology*, edited by D. Potts, 431–465. Oxford: Blackwell.
- Baird, D., D. Carruthers, A. Fairbairn, and J. Pearson. 2011. "Ritual in the Landscape: Evidence from Pınarbaşı in the Seventh-Millennium Cal BC Konya Plain." *Antiquity* 85: 380–394. doi:10.1017/S0003598X0006782X.
- Baird, D., and A. Fairbairn. *Forthcoming*. "Bayesian Analysis of the C14 Chronology from Boncuklu." In *Boncuklu; First Farmers in Central Anatolia and the Antecedents of Çatalhöyük. from Foragers to Farmers in Central Anatolia Volume 1*, edited by D. Baird and A. Fairbairn. London: British Institute at Ankara.
- Baird, D., A. Fairbairn, L. Martin, and C. Middleton. 2012. "The Boncuklu Project; the Origins of Sedentism, Cultivation and Herding in Central Anatolia." In *Neolithic in Turkey; New Excavations, New Discoveries. Central Turkey*, edited by M. Özdoğan, N. Başgelen, and P. Kuniholm, 219–244. Istanbul: Ege Yayınları.
- Bloch, M. 2010. "Is There Religion at Çatalhöyük... Or are There Just Houses?" In *Religion in the Emergence of Civilization*, edited by I. Hodder, 146–162. Cambridge: Cambridge University Press.
- Boivin, N. 2004. "Geoarchaeology and the Goddess Laksmi; Rajasthani Insights into Geoarchaeological Methods and Prehistoric Soil Use." In *Soils, Stones and Symbols: Cultural Perceptions of the Mineral World*, edited by N. Boivin and M. Owoc, 165–186. London: UCL Press..
- Bowie, F. 2006. *The Anthropology of Religion*. Oxford: Blackwell.
- Byrd, B. 2005. "Reassessing the Emergence of Village Life in the near East." *Journal of Archaeological Research* 13 (3): 231–290. doi:10.1007/s10814-005-3107-2.
- Byrd, B. F. 1994. "Public and Private, Domestic and Corporate: The Emergence of the Southwest Asian Village." *American Antiquity* 59: 639–666. doi:10.2307/282338.
- Carsten, J., and S. Hugh-Jones. 1995. *About the House. Lévi-Strauss and Beyond*. Cambridge: Cambridge University Press.
- Carter, T., S. Haddow, N. Russell, A. Bogaard, and C. Tsoraki. 2015. "Laying the Foundations. Creating Households at Neolithic Çatalhöyük." In *Assembling Çatalhöyük*, edited by I. Hodder and A. Marciniak, 97–110. Themes in Contemporary Archaeology, European Association of Archaeologists. Leeds: Maney Publishing.
- Düring, B. 2007. "Reconsidering the Çatalhöyük Community: From Households to Settlement Systems." *Journal of Mediterranean Archaeology* 20 (2): 155–182. doi:10.1558/jmea.v20i2.155.
- Düring, B., and A. Marciniak. 2006. "Households and Communities in the Central Anatolian Neolithic." *Archaeological Dialogues* 12 (2): 165–187. doi:10.1017/S138020380600170X.
- Fairbairn, A., E. Jenkins, D. Baird, and G. Jacobsen. 2014. "9th Millennium Plant Subsistence in the Central Anatolian Highlands: New Evidence from Pınarbaşı, Karaman Province, Central Anatolia." *Journal of Archaeological Science* 41: 801–812. doi:10.1016/j.jas.2013.09.024.
- French, D. 1998. *Canhasan I: Stratigraphy and Structures*. London: The British Institute of Archaeology at Ankara, monograph no. 23.

- Guthrie, S. 2014. "Religion as Anthropomorphism at Çatalhöyük." In *Religion at Work in a Neolithic Society; Vital Matters*, edited by I. Hodder, 86–108. New York: Cambridge University Press.
- Hauptmann, H. 1999. "The Urfa Region." In *Neolithic in Turkey*, edited by M. Özdoğan and N. Başgelen, 65–86. Istanbul: Ege Yayınları.
- Helmer, D., L. Gourichon, and D. Stordeur. 2004. "À l'aube de la domestication animale. Imaginaire et symbolisme animal dans les premières sociétés néolithiques du Nord du Proche-Orient." *Anthropozoologica* 39 (1): 143–163.
- Hodder, I. 2006. *The Leopard's Tale*. London: Thames and Hudson.
- Hodder, I. 2014a. "Theories and Their Data; Interdisciplinary Interactions at Çatalhöyük." In *Religion at Work in a Neolithic Society; Vital Matters*, edited by I. Hodder, 337–356. New York: Cambridge University Press.
- Hodder, I. 2014b. "The Vitalities of Çatalhöyük." In *Religion at Work in a Neolithic Society; Vital Matters*, edited by I. Hodder, 1–32. New York: Cambridge University Press.
- Hodder, I., and L. Meskell. 2010. "The Symbolism of Çatalhöyük in Its Regional Context." In *Religion in the Emergence of Civilization*, edited by I. Hodder, 32–72. Cambridge: Cambridge University Press.
- Hodder, I., and P. Pels. 2010. "History Houses: A New Interpretation of Architectural Elaboration at Çatalhöyük." In *Religion in the Emergence of Civilization*, edited by I. Hodder, 163–186. Cambridge: Cambridge University Press.
- Kuijt, I., E. Guerrero, M. Molist, and J. Anfruns. 2011. "The Changing Neolithic Household: Household Autonomy and Social Segmentation, Tell Halula, Syria." *Journal of Anthropological Archaeology* 30: 502–522. doi:10.1016/j.jaa.2011.07.001.
- Marciniak, A. 2008. "Communities, Households and Animals. Convergent Developments in Central Anatolian and Central European Neolithic." *Documenta Praehistorica* 35: 93–109. doi:10.4312/dp.35.
- Matthews, W. 2005. "Micromorphological and Microstratigraphic Traces of Uses and Concepts of Space." In *Inhabiting Çatalhöyük; Reports from the 1995–99 Seasons*, edited by I. Hodder, 355–398. London: British Institute at Ankara/McDonald Institute.
- McBride, A. 2013. "Performance and Participation: Multi-Sensual Analysis of Near Eastern Pre-Pottery Neolithic Non-Domestic Architecture." *Paléorient* 39 (2): 47–67.
- Nakamura, C., and P. Pels. 2014. "Using "Magic" to Think from the Material; Tracing Distributed Agency, Revelation and Concealment at Çatalhöyük." In *Religion at Work in a Neolithic Society; Vital Matters*, edited by I. Hodder, 187–224. New York: Cambridge University Press.
- Nazaroff, A., A. Baysal, and Y. Çiftçi. 2013. "The Importance of Chert in Central Anatolia: Lessons from the Neolithic Assemblage at Çatalhöyük, Turkey." *Geoarchaeology* 28: 340–362. doi:10.1002/gea.2013.28.issue-4.
- Özbaşaran, M. 2012. "Aşıklı." In *Neolithic in Turkey; New Excavations, New Discoveries. Central Turkey*, edited by M. Özdoğan, N. Başgelen, and P. Kuniholm, 135–158. Istanbul: Ege Yayınları.
- Özkaya, V., and A. Coşkun. 2011. "Körtik Tepe." In *Neolithic in Turkey; New Excavations, New Discoveries. The Tigris Basin*, edited by M. Özdoğan, N. Başgelen, and P. Kuniholm, 89–127. Istanbul: Ege Yayınları.
- Pearson, J. Forthcoming. "The First Farmers of Central Anatolia: A Reconstruction and Comparison of Burial Practice, Diet and Health at the Neolithic Site of Boncuklu Höyük and Beyond." In *Boncuklu; First Farmers in Central Anatolia and the Antecedents of Çatalhöyük. from Foragers to Farmers in Central Anatolia Volume 1*, edited by D. Baird and A. Fairbairn. London: British Institute at Ankara.
- Rosenberg, M. 1994. "Hallan Çemi Tepesi: Some Further Observations Concerning Stratigraphy and Material Culture." *Anatolica* 20: 121–140.
- Roux, J. C., G. Der Aprahamian, M. Brenet, and D. Stordeur. 2000. "Les Bâtiments Communautaires De Jerf El Ahmar Et Mureybet Horizon PPNA (Syrie)." *Paléorient* 26 (1): 29–44. doi:10.3406/paleo.2000.4696.
- Sahlins, M. 1974. *Stone Age Economics*. London: Tavistock.
- Schmidt, K. 2012. *Göbekli Tepe; a Stone Age Sanctuary in South-Eastern Anatolia*. Berlin: Ex Oriente.
- Watkins, T. 1990. "The Origins of House and Home?" *World Archaeology* 21 (3): 336–347. doi:10.1080/00438243.1990.9980112.
- Whitehouse, H., and I. Hodder. 2010. "Modes of Religiosity at Çatalhöyük." In *Religion in the Emergence of Civilization*, edited by I. Hodder, 122–145. Cambridge: Cambridge University Press.
- Yaeger, J., and M. A. Canuto. 2000. "Introducing an Archaeology of Community." In *The Archaeology of Communities. A New World Perspective*, edited by M. A. Canuto and J. Yaeger, 1–15. London: Routledge.